

AMENDMENTS TO THE CLAIMS

Please amend the claims of the present application as set forth below. In accordance with the PTO's revised amendment format, a detailed listing of all claims has been provided. A status identifier is provided for each claim in a parenthetical expression following each claim number. Changes to the claims are shown by strikethrough (for deleted matter) or underlining (for added matter).

- 10 1. (Currently amended) A printhead comprising:
- a substrate extending between a first substrate surface and a generally  
opposing second substrate surface; including:  
a plurality of firing chambers positioned over the first surface fluid  
heating elements; and,
- 15 at least one fluid channel that delivers fluid to the plurality of firing  
chambers fluid heating elements, the at least one fluid channel  
extending between the first surface and the second surface and  
~~wherein the at least one fluid channel~~ is defined by first and second  
substantially parallel side walls that are generally orthogonal to the  
20 first surface and first and second non-parallel end walls that are not  
orthogonal to the first surface.

2. (Original) The printhead of claim 1 wherein each of the first and second end walls is non-linear.

5 3. (Original) The printhead of claim 1 wherein each of the first and second end walls is curved.

4. (Currently amended) The printhead of claim 3 wherein the first end wall is defined by a first arc having a first radius of curvature having a first focus, and  
10 wherein the second end wall is defined by a second arc having a second radius of curvature having a second focus and wherein the first focus and the second focus do not lie in a space defined between the first surface and the second surface.

5. (Original) The printhead of claim 4 wherein the first radius of curvature is  
15 substantially equal to the second radius of curvature.

6. (Currently amended) The printhead of claim 1 ~~wherein the at least one fluid channel has a width dimension defined as the distance between the first and second side walls, and wherein the width dimension is at least 15  $\mu\text{m}$~~  3 wherein  
20 when viewed along a cross-section taken parallel to the first sidewall and

orthogonal to the first surface, the first and second endwalls define a portion of a shape which is convex toward the first surface.

7. (Original)The printhead of claim 1 wherein the at least one fluid channel  
5 has a width dimension defined as the distance between the first and second side walls, and wherein the width dimension is at least 15 $\mu$ m and less than 300 $\mu$ m.
8. (Original) The printhead of claim 7 wherein the width dimension of the at  
least one fluid channel is 200 $\mu$ m.
- 10
9. (Original)The printhead of claim 1 wherein the at least one fluid channel  
has a length dimension defined as the distance between the first and second end  
walls, and wherein the length dimension is at least 5000 $\mu$ m.
- 15 10. (Original) The printhead of claim 9 wherein the length dimension of the at  
least one fluid channel is at least 8000 $\mu$ m.
11. (Original) The printhead of claim 10 wherein the length dimension of the  
at least one fluid channel is 8750 $\mu$ m.

12. (Original) The printhead of claim 1 wherein the at least one fluid channel has a width dimension defined as the distance between the first and second side walls and a length dimension defined as the distance between the first and second end walls, and wherein the width dimension is at least 15 $\mu$ m and less than 300 $\mu$ m, and the length dimension is at least 5000 $\mu$ m.

13. (Original) The printhead of claim 12 wherein the width dimension is 200 $\mu$ m and the length dimension is 8750 $\mu$ m.

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14. (Original) The printhead of claim 1 wherein the at least one fluid channel is a plurality of fluid channels.

15. (Cancelled)

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16. (Cancelled)

17. (Cancelled)

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18. (Cancelled)

19. (Cancelled)

5 20. (Cancelled)

21. (Cancelled)

22. (Cancelled)

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23. (Currently amended) A printhead cartridge ~~for a printing system having a fluid supply for supplying fluid to the printhead cartridge, the printhead cartridge comprising:~~

a cartridge body; and

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a printhead die mounted to the cartridge body, the printhead die

having a first major surface and an opposite second major surface, the

printhead die including:

a plurality of firing chambers ~~resistors~~; and,

at least one ~~slot-feed~~ fluid channel for delivering fluid to the

5 plurality of firing chambers ~~resistors~~, wherein the at least one ~~slot-feed~~ fluid channel is defined by first and second side walls that are substantially perpendicular to the first major surface, and first and second end walls that are not perpendicular to the first major surface.

24. (Currently amended)The printhead cartridge of claim 23 wherein each of the first and second end walls ~~is curved~~ intersect at a point which does not lie in a  
10 space defined between a first plane containing the first major surface and a  
second plane containing the second major surface.

25. (Original)The printhead cartridge of claim 24 wherein the first end wall is defined by a first arc having a first radius of curvature, wherein the second end  
15 wall is defined by a second arc having a second radius of curvature, and wherein the first radius of curvature is substantially equal to the second radius of curvature.

26. (Currently amended) The printhead cartridge of claim 23 wherein the at  
20 least one ~~slot-feed~~ fluid channel has a width dimension defined as the distance

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between the first and second side walls and a length dimension defined as the distance between the first and second end walls, and wherein the width dimension is at least 15 $\mu$ m and less than 300 $\mu$ m, and the length dimension is at least 5000 $\mu$ m.

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27. (Original) The printhead cartridge of claim 26 wherein the width dimension is 200 $\mu$ m and the length dimension is 8750 $\mu$ m.

28. (Currently amended) The printhead cartridge of claim 23 wherein the at  
10 least one ~~slot-feed~~ fluid channel is a plurality of parallel ~~slot-feed~~ fluid channels.

29. (Currently amended) The printhead cartridge of claim ~~28 wherein each~~  
~~slot feed fluid channel of the plurality of slot feed fluid channels delivers a fluid~~  
~~of a different color to corresponding fluid heating elements of the plurality of~~  
15 fluid heating elements 23 wherein each of the first and second end walls is  
curved and is concave toward the first major surface.

30. (Cancelled)

31. (Currently amended) A semiconductor substrate having microelectronics integrated thereon comprising:

at least one fluid feed channel formed in a substrate between a first substrate surface and a generally opposing second substrate surface;

5 a plurality of fluid ejecting elements positioned over a the second substrate surface; and,

~~at least one fluid feed channel formed in the substrate, the at least one fluid~~

feed channel being configured to deliver fluid to the plurality of fluid

ejecting elements, wherein the at least one fluid feed channel is defined at

10 least in part by a first generally curved endwall that is concave toward the first surface and away from the second surface ~~and second substantially parallel side walls and first and second non-parallel end walls.~~

32. (Currently amended) ~~The semiconductor substrate of claim 31, wherein~~  
15 ~~each of the first and second end walls is generally non-planar~~ further comprising a second generally curved endwall that is concave toward the first surface and away from the second surface.

33. (Cancelled)



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34. (Currently amended)The semiconductor substrate of claim ~~33~~ 32, wherein the first end wall is defined by a first arc having a first radius of curvature, and wherein the second end wall is defined by a second arc having a second radius of curvature.

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35. (Original) The semiconductor substrate of claim 34, wherein the first radius of curvature is substantially equal to the second radius of curvature.

36. (Original)A fluid ejecting device comprised at least in part by the  
10 semiconductor substrate of claim 31.

37. (Original) A printing device comprised at least in part by the semiconductor substrate of claim 31.

15 38. (Original) The printing device of claim 37, wherein the printing device comprises a printer.

39. (Original) The semiconductor substrate of claim 31, wherein the fluid comprises ink.

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40. (New) The semiconductor substrate of claim 34, wherein the first radius of curvature has a first focus which does not lie between the first surface and the second surface and wherein the second radius of curvature has a second focus which does not lie between the first surface and the second surface.

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41. (New) The semiconductor substrate of claim 40, wherein the first focus and the second focus are positioned oppositely the second surface relative to the first surface.

10 42. (New) A printhead comprising:

a substrate having a depth; and

at least one fluid channel disposed within the substrate and comprising a first dimension that is substantially defined by the depth, the at least one fluid channel being further defined by first and second linear and substantially parallel side walls and first and second non-parallel end walls.

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